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PATENT SPECIFICATION



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374,240

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PROVISIONAL SPECIFICATION.

Improvements in Exercising Apparatus.

I, CHARLES WILLIAM PRESTON, of 50, Market Place, Kingston-upon-Hull, British Nationality, do hereby declare the nature of this invention to be as follows:—

This invention relates to improvements in rubber cable and similar types of exercisers and has for its object the provision of an apparatus in which the cable is suspended above the person using the same and consequently the exercise derived from its use is in an upward and downward direction instead of horizontally, together with the provision of "Grip" handles, and an adjustment giving differing tensions of the cable.

In carrying my invention into effect I employ a cable or cables of rubber or elastic material or other suitable material. This cable passes over a pulley or pulleys which may be attached to a hook or ring fixed in the ceiling or to a support above the head of the person using the apparatus. Affixed to one end of the cable or cables is a pair of handles of suitable shape by means of which the cable or cables may be gripped and stretched to the necessary limit. To the other end of the cable or cables is attached a cord,

which cord holds or contains a number of rings or loops distanced apart from each other. Any one of these rings or loops may be slipped on to a hook fixed to the wall, door or post, whichever is the most convenient, thus anchoring the other end of the cable or cables and providing the necessary tension when the apparatus is in use. The object of the rings or loops on the cord attachment is to provide a range of adjustments giving differing tensions of the cable or cables suitable to the person using the apparatus.

I further employ a pair of handles of suitable design attached or attachable to one end of the cable or cables. These handles are preferably of the "Grip" type, and consist of rubber, rubber composition, or other suitable material or composition, which may be compressed by the hand, and when so compressed, tend to strengthen the muscles of the hands and arms. These handles may be detachable from the cable or cables and used as ordinary grip dumbbells. I may alternatively employ handles made of wood, metal, or suitable composition.

Dated this nineteenth day of May, 1931.
C. W. PRESTON.

COMPLETE SPECIFICATION.

Improvements in Exercising Apparatus.

I, CHARLES WILLIAM PRESTON, a British Subject, of 50, Market Place, in the City and County of Kingston-upon-Hull, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

The present invention relates to exercising apparatus and has for its object the provision of means whereby a person, irrespective of his or her size, may derive physical exercises in a vertical direction.

According to the present invention, the exercising apparatus comprises one or more resilient cords or the like having a handle or handles at one end and means at the

other end for their adjustable connection to a wall or the like support.

The cords may be in the form of cables of rubber or the like elastic material, or again they may be in the form of sheathed coil springs. Again, the resilient cords or the like at the ends other than those to which the handles are attached, are secured to a flexible member which is detachably and adjustably connected to a rigid support such as a wall or upstanding post, by means of spaced eyelets secured in any desired manner to the flexible member, any one of these spaced eyelets or rings being adapted to be hooked to the wall or the like support.

The invention is more particularly

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described with reference to the accompanying drawings, in which:—

Figure 1 illustrates a preferred form of construction.

5 Figure 2 illustrates a modified form of construction.

Figure 3 is a detail view of a suitable form of handle.

In the construction illustrated in Figure 10 1 a number of pulleys 10 are mounted for rotation in pairs on a bracket 18 each of which is in turn suspended from a hook 11 rigidly secured to a horizontal support such as a beam in a ceiling.

15 A pair of elastic cords 12 are passed over said pulleys, each cord carrying at one end a handle 13 and being secured at the other end by a ring member 14.

A preferred form of handle is shown 20 in Figure 3, this consisting of a hard wood core 15 lying co-axial with the end 16 of the frame forming the handle, the core and said ends 16 being enclosed by a grip 17 preferably made of a spongy rubber.

25 Each handle 13 is connected to one end of its corresponding resilient cord 12 by means of the usual swivel 19 having a hook portion 20 closeable by a spring controlled member 21. The opposite end of each resilient cord 12 is connected to the 30 ring member 14 by means of similar swivels 19 whilst to this ring member 14 a flexible cord 22 is also connected, this flexible cord having a plurality of eyelets or rings 23 secured to it at spaced intervals.

It will be appreciated that the swivel 19 may be eliminated and the cords 12 40 connected to the handle 13 in a similar manner to that of the connection between the cords 12 and ring 14. In the latter case the cords 12 are reversible i.e. either end as desired may be connected to the handle. This ensures increased life of the 45 cords.

When the device is to be used as an exerciser by a tall person, one of the inner eyelets or rings 23 is secured to a hook 24 rigidly connected to a wall, pillar or 50 the like vertical support, whilst if a person of short stature such as a boy or girl wishes to use the exerciser one of the outer eyelets or rings, i.e. an eyelet or ring adjacent the end 25 of the flexible cord 55 22 is connected to said hook 24. By this means the height of the handles 13 from the ground when the exerciser is in its inoperative position can be varied at will to suit particular requirements.

60 In the modified form of construction illustrated in Figure 2 one of the pairs of pulleys 10 are eliminated. This form is suitable where the strength of the user is not likely to be great, the cords passing 65 directly from the ring 14 over one pair

of pulleys alone and then depending from the support for the handles to be gripped by the user.

The same feature of adjustability however, applies in this modification. 70

Instead of providing grips of rubber or the like resilient material on the handles 13 for the purpose of enabling a user to exercise the muscles of his or her hand during vertical reciprocation, the handles 75 may be made of rigid material such as wood or metal and are obviously detachable and interchangeable.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:— 80

1. An exercising apparatus comprising one or more resilient cords or the like 85 having a handle or handles at one end and means at the other end for their adjustable connection to a wall or the like support.

2. An exercising apparatus in which one or more resilient cords or the like adapted 90 to be passed over pulleys, have one or more handles at one depending end and are secured at the other end to a flexible member adapted to be detachably and adjustably connected to a rigid support. 95

3. An exercising apparatus comprising substantially horizontal and vertical supports, one or more pulleys on said horizontal support, one or more resilient cords 100 or the like passing over said pulleys to leave depending ends for the grip of the user and a flexible member connected at its end to one end of said cords and detachably and adjustably connected at its other end to said vertical support. 105

4. An exercising apparatus as claimed in any of the preceding claims in which the flexible member is provided with spaced rings any one of which may be hooked or otherwise detachably connected 110 to the wall or the like support.

5. An exercising apparatus as claimed in any of claims 2 to 4 in which the flexible member is connected to the resilient cord or cords by means of a ring, 115 the cords or flexible member having spring controlled eyes at their ends for this purpose substantially as described.

6. An exercising apparatus constructed 120 and arranged to operate substantially as described with reference to the accompanying drawings.

Dated this 11th day of January, 1932.

W. P. THOMPSON & Co.,
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and
12, Church Street, Liverpool.
Chartered & Registered Patent Agents.

[This Drawing is a reproduction of the Original on a reduced scale.]

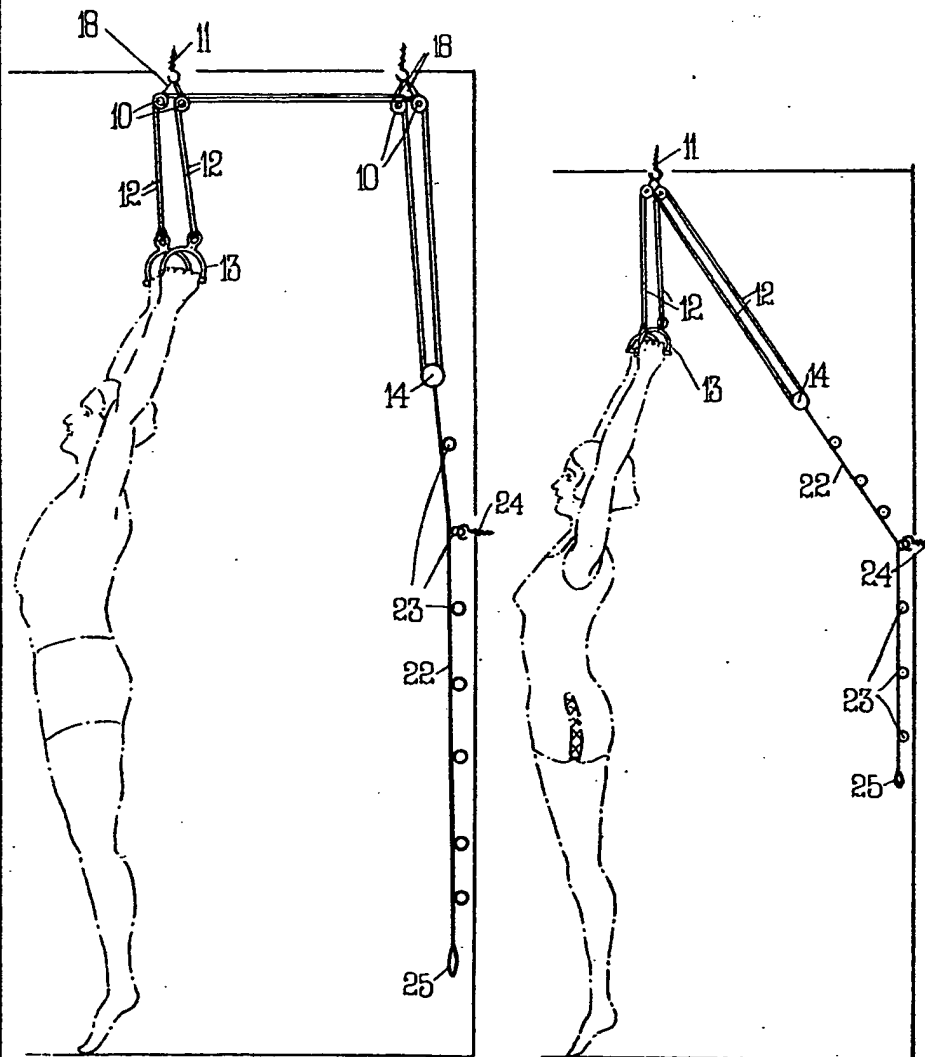


Fig. 1.

Fig. 2.

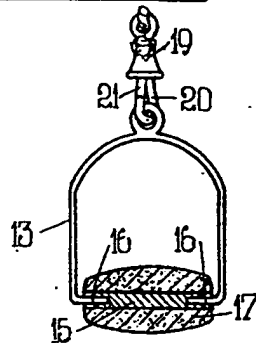


Fig. 3.

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